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The Association Between Autobiographical Memory Specificity And Memory Sharing In College Students

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THE ASSOCIATION BETWEEN AUTOBIOGRAPHICAL MEMORY SPECIFICITY AND MEMORY SHARING IN COLLEGE STUDENTS

by

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This thesis, submitted by Nicola Herting in partial fulfillment of the requirements for the Degree of Master of Arts from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

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Nicola Herting
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ABSTRACT

The way in which memories are stored and communicated makes the construction of autobiographical memories (AM) both an internal process and a social occurrence. Strong associations between reduced AM specificity and psychological adjustment have been found; however, the role significant others have in the socialization and co-construction of AM may have be overlooked. This study examines whether the process of sharing AMs and the perceived benefits of sharing these memories are associated with differences in specificity of AM, as well as explores methodological differences in how AMs are collected. Data from 177 participants was collected on the Most Important Memories Scale (MIMS), Autobiographical Memory Task (AMT), and other measures to control for depression, avoidance, rumination, and executive functioning. Results indicate the emerging adults most commonly share significant life events with close friends, verbally in person, for the purposes of self-explanation and validation. Perceiving sharing as beneficial, and higher specificity on positive AMT cues, were found to be significant predictors of retrieving a specific memory on the MIMS. Few significant gender differences were found in sharing practices, and no significant gender differences were found in specificity. The limitations and future directions for this research are discussed.

Keywords: autobiographical memory, memory sharing, co-construction, emerging adults

CHAPTER I

INTRODUCTION

Every person has a life story, a personal narrative that forms over the course of his or her life. This life story is formed through the recollection, understanding, and meaning making of memories from one's personal past experiences. These memories, also known as autobiographical memories (AMs), are the interaction of episodic and semantic memories that relate specifically to an individual's life. AMs are formed through a complex process which involves mentally tracing past events and associated semantic knowledge and then representing that information in relation to one's current goals and situation (Griffith, Kleim, Sumner, & Ehlers, 2012).

In the last few decades, interest has grown in the study of between-group differences in autobiographical memories (AMs) as researchers have made efforts to delineate the aspects of life stories that might contribute to one's adjustment and well-being. For researchers in the area of memory research, how you remember something is as important as what you remember (Williams et al., 2007). Therefore, AM researchers have fruitfully studied and evaluated not only the accuracy of AMs, but also other domains, including the content and emotional intensity of AMs, as well as the specificity of details in which these memories are described (Baron & Bluck, 2009; Williams, et. al., 2007). Specificity refers to how detailed the memory is, and whether the memory is a specific event at a particular time or place. Numerous studies have examined specificity

of AM and identified evidence of over-general memory (OGM; Williams, et. al., 2007). OGM reflects a lack of specificity, difficulty recalling specific events, and responding with general or abstract memories (Schonfeld, Ehlers, Bollinghaus, & Rife, 2007; Williams & Broadbent, 1986). An example of OGM might be "Saying goodbye to my friends was rough" instead of "I was devastated the afternoon I moved and said goodbye to my best friends."

A number of tools have been created to evaluate autobiographical memory specificity, including sentence completion tasks, semi-structured interviews, and perhaps the most commonly used method, the autobiographical memory test (AMT, see Griffith et al., 2012 for a review of these different methods). When administered the AMT, participants are presented a series of positive and negative emotion cue words and asked to recall a specific personal memory in response to each cue (Williams & Broadbent, 1986; Williams & Scott, 1988). Researchers using the AMT to examine the variability in AM specificity have found OGM to be strongly associated with various factors including psychological adjustment (Raes et al., 2006; Ricarte et al.,2011) and negative life events (Crane & Duggan, 2009). One factor that seems to be largely overlooked is the role significant others have in the socialization and co-construction of AM. This study aims to examine methodological differences in how AMs are collected, and identify whether the process of sharing and perceived benefits of sharing are related to differences in the specificity of AMs. A review of the literature on the links between OGM and psychological adjustment, along with an argument for the need to consider the influence that sharing and co-construction has on AM is presented below.

Autobiographical Memory and Psychological Adjustment

Since Williams & Broadbent (1986) first identified overgeneral memory (OGM) as a pattern amongst individuals with affective disorders, research has examined the relationship between OMG and a variety of factors. Research shows specificity to be related to several positive outcomes. For instance, expressive writing literature shows writing about personal experiences with more detail and emotion is predictive of greater well-being and improvements in mental and physical health (Pennebaker & Segal, 1999; Seudfeld & Pennebaker, 1997). Maestas & Rude (2012) found a significant relationship between expressive writing, increased specificity on the AMT, and a reduction in avoiding distressing thoughts among non-depressed college students. Within the context of family narratives, there is evidence that mothers' specificity and elaboration of negative events in family discussions is related to higher emotional regulation well-being among children (Fivush, Marin, McWilliams, & Bohanek, 2009). This growing body of research seems to indicate that those who produce well-constructed, specific narratives show higher levels of physical and psychological well-being.

In turn, OGM is associated with depressive symptoms, an association that has been well established. A meta-analysis by Williams et al. (2007) that included 11 studies showed significant differences in OGM between patients with Major Depression Disorder (MDD) and matched controls, with depressed individuals displaying a greater tendency to describe OGMs. The mean effect size of the 11 studies was a *cohen's d* of 1.12 (IQR =0.44). Research has also found that OGM plays a role in the maintenance of depression, with OMG being associated with a poorer prognosis in people with depression (Raes et al., 2006). High frequencies of OGMs have also been found to be associated with deficits

in social problem solving (Goddard, Dritschel, & Burton, 1996) and difficulty imagining future events (Williams,1996), which can contribute to depressive symptoms such as negative affect and hopelessness.

Over the years several theories have been presented on why OGM occurs and how it is associated with affective disorders and negative life events. The most prominent theory has been the Self Memory System model developed by Conway & Pleydell-Pearce (2000). The basis of the Self Memory System model is that AMs are arranged hierarchically from broad life themes, to lifetime periods, to general events, to event-specific knowledge. The model proposes that specific AMs are retrieved through either top-down processing or direct retrieval. Williams (2006) expanded the Self Memory System model and integrated previous findings to construct the CarR-FA-X model, which is currently the most comprehensive and empirically supported model. The CaR-FA-X model suggests three mechanisms, which operate either individually or through combined effort, underlie OGM: capture and rumination (CaR), functional avoidance (FA), and impaired executive control (X).

The capture and rumination mechanism refers to ruminating (evaluative and analytical processing) over negative and self-related information that prevents continuing the search for specific memory. Functional avoidance refers to a cognitive avoidance strategy that activates the use of a nonspecific retrieval process to temporarily reduce distress after aversive experiences. Executive control refers to goal-directed higher-order processing skills such as planning and monitoring information. The model proposes that OGM results when one or more of the three proposed mechanisms terminate the top-down retrieval process early. Research shows the mechanisms of the model to be

particularly applicable to OGM among individuals with active negative self-schemas (Sumner, Griffith, & Mineka 2011), ruminative processing (Debeer, Hermans, & Raes, 2009), trauma and depression histories (Aglan, Williams, Pickles, & Hill, 2010; Hermans et al. 2008; Schonfeld & Ehlers, 2006), and executive functioning difficulties (Raes Verstraeten, Bijttebier, Vasey, & Dalgleish, 2010). Sumner (2012) reported that overall the majority of research shows robust support for the association between OGM and the CaR-FA-X mechanisms, however the review also suggests further research is necessary to refine the model and identify other factors that contribute to OGM.

Gender differences in AMT specificity have also been found. Studies examining gender differences in specificity using the AMT show evidence of significant differences between male and female specificity. For instance, Ros & Latorre (2010) found that in general women (young adults through older adults) retrieved more negative memories than men. Heron and Colleges (2012) examined AMs a large sample of young teenagers and found a significant effect for gender, such that females had higher specificity than males. In a sample of children from 3rd to 11th grade, Davis (1999) found that girls recalled more memories than boys and that the girls also responded faster than boys on the AMT.

Although many researchers have found differences in autobiographical memory related to both psychological adjustment and gender, this body of research is not without areas for growth and needs for future research. In their review of the current methodological issues in the measurement of AMT, Griffith and colleagues (2012) identified a number of current limitations in AMT studies. Among these limitations it that many researchers have failed to compare more than one method of AM collection in the

same study and recommended that future research should incorporate a multi-method assessment of OGM comparing different methods within-subject designs to broaden the "understanding of OGM as a cognitive phenomenon (p. 529)". As a result of this limitation, it is unclear whether the level of specificity of memories elicited by the AMT may have any relationship to the level of specificity of AMs of memories described by participants as being impactful and meaningful to them. Furthermore, slight changes in the instructions for administering the AMT have produced variability in specificity. Bunnell & Greenhoot (2012) found when using an untimed version of the AMT that abuse severity actually predicted greater memory specificity. When using the timed version, their results differed with history of childhood abuse being positively correlated with OGM. Bunnell & Greenhoot hypothesized that the results from this comparison suggest OGM in people with trauma histories is highly dependent on context in which the memories are elicited. Results from other studies also suggests shorter time limits on the AMT impacts the type of memory retrieved and level of specificity (Williams, Healy, & Ellis, 1999). Understanding additional potential differences in specificity across AM collection methods might have important implications for cognitive research and clinical applications.

Williams and colleagues (2007) have also argued the importance of examining other factors that influence AM specificity beyond negative life events, psychological adjustment, and gender. Other factors that may be important to consider when evaluating AM specificity include the role of sharing and coconstruction of AMs with others and the perceived benefits of sharing AMs.

Sharing and Coconstruction

How often a person shares meaningful autobiographical memories with others may help to increase autobiographical memory specificity as sharing provides avenues for rehearsal and coconstruction of memories. Research has shown that rehearsal of memories contributes to memory stability over time and that the rehearsed memories are more likely to be recalled in the future (see Pasupathi, 2001 for review). Research also shows that sharing and conversing with others impacts how the event is remembered and retold in the future. For instance Manier, Pinner, & Hirst (1996) examined how recall of an event changes over time depending on how it is rehearsed. Participants recalled a news story and then later recounted the memory to the experimenter or discussed the memory within a group. After a distractor task, participants recalled the event again. Manier et al. (1996) found that those who discussed the memory with a group had significantly better memory of the event and recalled more details than those who recounted the memory to the experimenter. Those who discussed the memory with a group also incorporated details from the collaborative discussion.

The development of AMs, especially those shared with others, may also be considered a collaborative process. The creation of life stories are both an internal process and a social occurrence as sharing memories of personal experiences and defining memories shape the ways in which AMs are interpreted and encoded, stored, and later recalled (McLean & Pasupathi, 2006). Few studies, however, have examined the association between autobiographical memory, specificity, and sharing aside from a handful of studies examining how parents socialize the AM of their young children (Fivush, et al., 2009; McLean, Paupathi, & Pals, 2007).

Most of the research on memory co-construction has focused on the parent and child relationship and has found that a parents' elaboration of autobiographical memories impacts children's autobiographical reasoning, self-awareness, and ability to produce complex narratives (Lunkenheimer, Shields, & Cortina, 2007; McLean et al., 2007; Reese, 2002). This body of research has shown that the discussion and evaluation of negative life events helps children understand the meaning of the events, which can foster greater self-understanding, self-consistency, and self-esteem (Bird & Reese, 2006; Bohanek, Marin, Fivush, & Duke, 2006). The relationship between talking about negative experiences, autobiographical reasoning, and self-understanding persists beyond childhood, occurring in conversations among adults as well (McLean, et al., 2007). Furthermore, several studies indicate that more connections and reflections occur during narration when people have the goal of self-understanding through sharing (McLean & Pratt, 2006; McLean et al, 2007). This body of research provides evidence that during coconstruction throughout the lifespan, autobiographical reasoning skills and self-understanding are developed. Thus coconstruction and the rehearsal inherent in sharing memories, may serve to enhance the specificity of AMs.

Differences in the speaker's motivation and perceived benefits of sharing may shape the specificity of AMs as well. McLean (2005) examined five common perceived benefits of telling based on previous research. The five benefits included validation (to validate one's thoughts or feelings about the memory), meaning seeking (to better understand the memory), entertainment (to connect with and entertain others), self-explanation (to explain oneself to someone), and intimacy (to get closer to someone). Self-explanation was the most common reason for telling among the adolescent sample,

and most associated with meaning making. These results are consistent with similar studies with other age groups (Pasupathi, Henry, & Carstensen, 2002). Entertainment was also a significant telling function. Self-explanation is considered a more intimate form of self-disclosure than entertainment. The study found that males were more likely to tell stories for the purpose of entertainment than females. This finding is consistent with research indicating females have propensity for intimacy and males tend to disclose about shared adventures (McLean, 2005; Webster, 1995).

Alea & Bluck (2003) discuss similar findings using a model of three social functions of AM, include developing or maintaining intimacy in relationship, teaching and informing others (i.e. through advice-giving), and eliciting or providing empathy. Alea & Bluck (2003) assert that the benefits of sharing tend to change across the lifespan, with developing intimacy being central for young adults as they enter significant relationships, teaching and informing others for middle aged adults as they pursue goals, and for older adults the function of eliciting and providing empathy is key to manage losses. This research suggests that age and gender influence the type of perceived benefits of sharing.

McLean found that younger adolescents were more likely to tell significant events to parents, in comparison to older adolescents who were more likely to tell peers. Syed (2012) found similar results among college students such that, younger students reported sharing significant experiences with parents more, and older students reported sharing significant experiences more with friends. These results show a shift of audiences from family to friends during adolescence and emerging adulthood. This shift is consistent with the change in social support that takes place in adolescence as adolescents and

emerging adults begin to rely on friends more than family (Grotevant & Cooper, 1998). The shift also aligns with the developmental challenge of building intimate relationships separate from family and fits with the benefits of sharing most commonly reported by adolescents and emerging adults (McLean, 2005). Change in the perceived benefits of sharing and whom individuals share memories with are consistent with the developmental challenges faced at different life stages. These results suggest that the developmental stage and perceived benefit of sharing influences what is shared with whom, which in turn influences memory specificity.

Taking into consideration the research on the different benefits of sharing, there may be important developmental differences in the perceived benefit of sharing. Furthermore, individuals who perceive greater benefit from sharing autobiographical memories may view the memories as more meaningful, and may also be willing to share the memories more readily. This in turn may increase the specificity of the memories through coconstruction and continual rehearsal.

Current Study

The purpose of the current study is to examine sharing practices and specificity of AM among emerging adults, as well as explore methodological differences in how AMs are collected. Data was collected using the Most Important Memories Scale (MIMS) a retrospective self-report scale developed for the current study that provides the perceived benefits of sharing, the frequency of sharing, and the characteristics of the predominant audience (individuals with whom they most often share their memories with). The AMT was also administered, as well as other self-report measures and computerized tasks to control for depression, rumination, avoidance, and impaired executive control. The

current study aims to address several research questions to achieve its purpose of exploring the sharing characteristics of emerging adults and examining which variables predict AM specificity:

With whom are emerging adults more likely to share their AMs and what are the most common perceived benefits of sharing? Emerging adults are in the developmental stage where self-explanation, intimacy, and relationships are central (Pasupathi & Hoyt, 2009), and so the author hypothesized that significant life events would be shared with peers more than parents, teachers, and other authority figures. The author also hypothesized that among this college-aged sample, the most common benefits of sharing would be intimacy and self-explanation.

Will there be gender differences in the perceived benefit of sharing memories and MIMS and AMT specificity? Based on previous research indicating gender differences in reasons for sharing and specificity, the author hypothesized that there would be gender differences for reasons for sharing and specificity, such that females will endorse intimacy as the reason for sharing more than males and will also share more specific AMs compared to males.

Will the perceived benefits of sharing and the frequency in which MIMS memories are shared be associated with greater specificity? Based on research related to repetition and benefits of sharing the author hypothesized that those who identify benefits of sharing, such as increased intimacy and greater understanding of an event's impact, will share more often. It was hypothesized that perceived benefits of sharing and the frequency of sharing would be positively correlated to greater MIMS specificity.

Are the levels of specificity of memories elicited by the AMT similar to the level of specificity of self-perceived impactful and meaningful AMs disclosed using the MIMS? The author addressed this question by comparing the specificity of responses to the AMT with the specificity AMs of the MIMS, a measure that requires participants to describe a memory that is impactful and meaningful to them. Based on the mechanisms proposed by the CarR-FA-X model to explain the OMG, the author hypothesized that these mechanisms will operate similarly across memories elicited by the AMT and MIMS, thus creating similarities in levels of specificity across the two methods.

Will factors that predict specificity on the MIMS predict specificity on the AMT as well? The author hypothesized that if level of specificity on the MIMS and AMT is similar, than the factors found to predict specificity on the MIMS, would also predict specificity on the AMT. Factors such as gender, perceived benefit of sharing, and frequency of sharing, when controlling for depression, rumination, avoidance, and impaired executive functioning, are expected to predict specificity across a range of situations as reflected by the two approaches.

The results of this study could have possible implications for the study of AMs, socialization, and co-construction research. First, it provides one of the first multi-method assessments of OGM that compares different methods (AMT and MIMS) using a within-subject design. The results could also enhance our understanding of OMG as a construct and may have important implications for cognitive research and clinical applications. Second, this study may lead to a better understanding of the factors that moderate OGM. Third, this study could contribute to the understanding of the role rehearsal and co-

construction play in the development of AM. Lastly, if similarities in predictors of specificity are found across different measures of AMs, this study may provide support of a general emotion sharing style, e.g., individuals who perceive benefits to sharing one memory, might be more apt to share other memories, which may foster specificity. Although, there are limitations due to the nature and design of this study, specifically the use of retrospective self-report that limits the ability to make causal inferences, it is hoped that this preliminary study will led to more in-depth longitudinal research in the future.

CHAPTER II

METHOD

Participants

The participants were 177 students (23% males and 77% females) from psychology departments' undergraduate research pools at universities in the Midwestern United States. The mean age of the group was 19.48 *(SD*=2.59*).* The ethnic distribution was 85.7% Caucasian, 2% Native American, 4% African American, 4.5% Asian American, 1% Hispanic American, and 2.8% other; which is reflective of the Midwest region. Participants signed-up on the psychology departments' standard online research-administration system (SONA Systems, Ltd, Version 2.72; Tallinn, Estonia) to participate in the study and were compensated with course credit after completing the study. To participate, students were required to be 18 or older and have no visual or auditory impairment that would significantly interfere with ability to complete the assessment procedures.

Measures

Demographic questionnaire. This self-report measure collected basic information such as age, gender, ethnicity, relational status, education level, and mental health history.

Memory sharing. The Most Important Memory Sharing Scale (MIMS) was developed for the current study to assess characteristics of memory telling and meaning making. The MIMS was adapted from the Self Defining Memory Questionnaire (SDQ: Singer & Moffitt, 1991), which has been used for memory telling and meaning making research. Also included were other questions related to memory sharing that previous researchers have suggested as being important (Alea & Bluck 2003; McLean & Pasupathi, 2006; Pasupathi & Rich 2005). Unlike the SDQ, which asks participants to respond to a series of open-ended that were coded by researchers (e.g., whom did they shared the memory with), the MIMS includes a number of scaled items.

The MIMS includes 12 items (see Appendix A). The first MIMS item requires participants to describe an experience that "had the most impact and influence" on their lives. Then they are asked to clarify whether the memory shared was previously disclosed in the AMT exercise and the age at which the experience took place. The remaining items have participants describe whether the event was viewed as negative or positive (both when it happened and currently), how often they discussed the memory with various groups of people (e.g. close friends, parents), and the ways these memories were shared (e.g. verbally in person, texting). The MIMS also addresses reasons for sharing memories (e.g. validation, intimacy, comfort), reasons for not sharing, perceived support from others for sharing, and how they perceived sharing the memory developed their understanding of the event.

The MIMS provides a number of different variables of interest to the current study. These include a measure of specificity derived from their description of a memory that "had the most impact and influence" (see the Transcription and Coding section

below for a description of the coding process). A MIMS sharing frequency score was also derived by summing the ratings for each group of people in question 6. This data is categorical and so it was converted into likert scale such that, never sharing=1, sharing 1-2 times=2, sharing 3-5 times=3, sharing 6-10 times=4, and sharing 10+ times=5. Higher scores therefore indicate an overall higher frequency of sharing. The MIMS provided a measure of perceived benefits of sharing by summing the overall total number of benefits the participant selected.

Autobiographical memory specificity. The Autobiographical Memory Test (AMT; Williams & Broadbent, 1986) was used to assess autobiographical memory and specificity. The AMT is a widely used measure of autobiographical memory which asks participants recall personal memories in response to cue words. Standard AMT administration instructions will be used. The participant was presented a series of cue words and asked to recall a specific personal memory in response to each cue. The cue words consist of traits or personal characteristics. A specific personal memory was defined as a particular occurrence identified by the participant when the experienced the trait. There was four practice prompts (persistent, cautious, proud, and thrifty) presented orally in interview format to ensure understanding of retrieving a specific personal memory. The participant was given the opportunity to ask questions before proceeding to the experimental cues. There was 10 positive and 10 negative experimental cues (friendly [Positive=P], lazy [N=Negative], loyal [P], distrustful [N], happy [P], hostile [N], open-minded [P], selfish [N], honest [P], ashamed [N], intelligent [P], guilty [N], self-disciplined [P], cowardly [N], helpful [P], jealous [N], kind [P], rude [N], humorous [P], and cruel [N]). The positive and negative cue words were taken from Williams and

Broadbent (1986), and the practice prompts taken from McNally and colleagues (1995). The cues were presented randomly, one at a time on the computer screen.

Participants were randomly assigned to one of three AMT administation experiemental groups. Group 1 was administered the AMT through an interview with a trained research assistant. Responses were audio recorded and transcribed after the interview. Group 2 completed the AMT measure online using Qualtrics and typing their responses onto the computer. Group three completed the AMT task by handwriting their responses with pencil and paper. In each of these groups, AMT prompts were presented to participants on a computer screen in 120 second intervals using Qualtrics. In other research studies using the AMT, researchers typically alocate 30 or 60 seconds for each emotional cue, however to standardize the different administration types (handwritten, oral, and typed) participants were given 120 seconds to respond (Arntz, Meeren, & Wessel, 2002; Bunnell & Greenhoot, 2012; Griffith et al., 2009). The randomizing procedure, placing particpants in one of the three groups, was conducted to account for method variance associated with each AMT modality. Tests were conducted to examine whether differences occur accross the different modalities. Participants' responses were coded for specificity using the widley accepted criteria for scoring AMT performance outlined by Williams (1992). A description of the criteria used for specifitiy coding is provided in the transcription and coding section below.

Depressive symptoms. In order to control for the effects of depression on the AMT, as implicated by the CaR-FA-X model, the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) was given to participants. The measure consists of 20 items and asked participants to endorse how often they have felt depressive

symptoms during the past week using a likert scale (from 1= “Rarely or none of the time” to 4 = “Most or All of the Time”). The measure asked about symptoms such as " My sleep was restless" and " I felt that everything I did was an effort" (Radloff, 1977). The CES-D produces a total score for presence of depressive symptoms, with higher scores indicating more symtoms with greater severity. The measure of internal consistency for the current study was in the good range (**α**=.686), which is consistent with previous research with general and clinical populations. This measure has been found to have good internal consistency at .85 in the general population and .90 in the clinical population (Radloff, 1977).

Avoidance and emotion regulation. In order to control for the effects of avoidant emotional processing on the AMT, the Emotion Regulation Questionnaire (ERQ; Gross & John, 2003) was given to participants. The measure consists of 10 items that reflect two common emotion regulation strategies, reappraisal and suppression. The measure asked participants to rate how much the statement reflects their emotional expression style using a likert scale (from 1=strongly disagree up to 7=strongly agree). Examples of the statements on the measure include “When I want to feel more positive emotion, I change the way I’m thinking about the situation” and " I control my emotions by not expressing them" (Gross & John, 2003) The measure of internal consistency for the current study was in the good range (**α**=.698), which is consistent with previous research with general and clinical populations. The measure has been found to have reasonable internal consistency, with alpha reliabilities averaging .79 for reappraisal and .73 for suppression (Gross & John, 2003). For the current study, the suppression scale was used as a measure of an avoidant coping.

Rumination. In order to control for the effects of ruminative processing on the AMT, the Ruminative Response Scale (Nolen-Hoeksema & Morrow, 1991) was given to participants. The measure consists of 22 items that reflect brooding, reflective, and depression-related response styles. The measure asks participants to indicate whether they never (1), sometimes (2), often (3), or always (4) think or do each item when they feel sad, down, or depressed. Examples of the items on the measure include "Write down what you are thinking and analyze it" and " Think about a recent situation, wishing it had gone better" (Nolen-Hoeksema & Morrow, 1991). The scale provides a measure of rumination by summing the 22 items. The measure of internal consistency for the current study was in the good range (**α**=.931), which is consistent with previous research with general and clinical populations. Previous studies have reported acceptable convergent and predictive validity for this scale (Butler & Nolen-Hoeksema, 1994; Nolen- Hoeksema & Morrow, 1991) and test-retest reliabilities of .67 (Nolen-Hoeksema, 2000).

Executive functioning. Executive functioning was assessed using the computerized version of the Wisconsin Card Sorting Task-64 (WCST-64 CV2) to control for variability in executive control that may influence AMT performance (Heaton, 2003). A trained research assistant administered the WCST-64. The measure required participants to sort 64 cards by moving them one at a time in front of one of the stimulus cards. The participant was purposefully not told the rules of the task, but was told whether their placement of each card was correct or incorrect. The goal of the task is for the participant to determine the correct sorting rule, and reconfigure as the rule changes. This task relies on frontal lobe functioning and requires cognitive flexibility, abstract

reasoning, and ability to utilize feedback (Heaton, Chelune, Talley, Kay, & Curtiss, 1993).

For the current study, the WCST-64 perseverative errors score was used as an indication of impaired executive functioning, with standard scores of 84 and below falling in the impaired range. This measure of perfomrance is in accordance with accordance with previous studies (Greve, Stickle, Love, Bianchino, & Stanford, 2005). Studies show the WCST has generalizability coefficients ranging from .39 to .72, with an average of .57 and a median of .60 (Heaton et al., 1993). It has also shown good concurrent validity with other cognitive tests (Strauss, Sherman, & Spreen, 2006).

Transcription and coding. In the AMT task participants were asked to give a specific personal memory in response to each of the 20 positive and negative cue words. The written, interview, and computer responses will then be transcribed and coded. Upper level undergraduate research assistants who were unaware of the study hypotheses were trained in the transcription and coding system. The transcripts were separated from all other measures during the coding process, identified only by their participant number to ensure that the transcribers and coders are blind to information regarding each participant. To ensure responses were accurately transcribed, an additional research assistant will check each transcription and grammatical errors will be corrected.

Specificity coding. Both the participant responses' to the MIMS question (regarding an autobiographical memory that "had the most impact and influence" on their lives) and the AMT responses were coded for memory specificity using the widely used criteria established by Williams (1992). Memory specificty on the MIMS was coded categorically with "specific"=1 if they refer to a past event that was personally

experienced by the participant (e.g. I was really happy last Saturday when I was spending time in the park with my best friend) or "overgeneral categoric/extended/not specific"=2 if they are autobiographical and categorical or extended but not specific (e.g. OG Categorical: I was happy when I met so many people my first semester of college. OG Extended: When we went to the lake over the summer wevhad so much fun swimming and riding every day). Each of the AMT memories were similarly coded as "specific"=1, but the overgenderal memories were split into two categories "overgeneral categoric"=2, "overgeneral extended"=3, and 0 in instances where no personal memories was given (e.g. Children are always happy when playing in the park). The four specificity variables were used for the analyses by calculating the total frequency of specific, overgeneral, and no memory responses by each participant during the AMT. Griffith et. al (2009) used confirmatory factor analysis to examine the psychometric properties of AMT and reported that a one-factor model of autobiographical memory specificity is a good fit and provides a good conceptualisation of AMT performance. Studies have also reported good internal consistency reliability scores of .72 (95% CI [.67, .77]) that are based on dichotomous (specific vs. not specific) scoring of AMT responses (Griffith, Kleim, Sumner, & Ehlers, 2011).

An upper level undergraduate research assistant and graduate student research assistant were trained on the specificity coding system. Twenty percent of the AMT transcripts were coded by three coders to determine inter-rater reliability. The strength of agreement between raters was assessed using Landis & Koch (1977) criteria. There was above .80 percentage agreement between the raters and Kappa statistics ranged from moderate to almost perfect agreement.

Procedure

The study was listed online with other ongoing psychology research studies and participants signed up online to participate in the study. Resaerch was conducted in psychology research labs by trained upper level undergraduate resaerch assistants. The study was conducted in one session and took approximately 60-90 minutes to complete. Participants were asked to sign the consent form and all standard IRB and university protocols for informed consent procedures were followed. Participants were randomly assigned to one of three AMT administation experiemental groups: Group 1 (interview), Group 2 (online), and Group 3 (handwritten). The AMT measure was administered on Qualtrics according to the participant's group. After the AMT measure, all participants completed the CES-D, ERQ, RRS, and MIMS online through SurveyMonkey, as well as the WCST-64 CV2. Finally the partipants completed a demographic questionnaire and reaction to participation measure online through SurveyMonkey. At the end of the study, participants received a debriefing form which will also include contact information for the university and other local counseling centers and the crisis hotline numbers in case such services are needed. After thanking the particpants, the research session was concluded.

CHAPTER III

RESULTS

The results are divided into three major sections: Data Screening and Preliminary Analyses, Descriptive Statistics, and Inferential Statistics. The first section outlines the process of data screening and discusses the preliminary analyses used to inform the main analyses. The second section addresses the specific research questions related to the sharing practices evaluated using the MIMS. The third section addresses the specific research questions related to specificity of the MIMS and consistencies between specificity on the MIMS and the AMT.

Data Screening and Preliminary Analyses

Following the procedures outlined by Mertler & Vannatta (2010), descriptive statistics and frequency distributions were visually inspected for missing values and to identify potential data entry errors or extremely unusual scores. Graphic and statistical analyses for univariate and multivariate outliers were subsequently conducted using boxplots, stem-and-leaf and Mahalanobis distance. For participants with more than 5% of random missing data or whose data appeared to be nonrandom and incomplete for known reasons not realted to the outcome measures, were dropped from the dataset. Using this criteria, data from one participant was eliminated.

The analyses were run including and excluding the outliers identified through box plots and stem-and-leaf plots. The outliers determined to be valid and entered correctly

were retained and adjusted to the extreme minimum/maximum value depending on the direction of the outlier. Several variables contained outliers and required the stated adjustments; these include the AMT Total Specificity, AMT Positive Specificity, AMT Negative Specificity, Benefit of Sharing, ERQ Total, RRS Total, RRS Brooding Total, CES-D, WCST Total Errors, and WCST Perseverative Errors variables. Normality was assessed using measures of skewness and kurtosis. In order to meet normality assumptions, a square root transformation was applied to variables that were moderately positively skewed: CES-D, RRS Total, and RRS Brooding Total and a log10 transformation was applied to WCST Total Perseverative Errors which was substantially positively skewed. A reflect and square root transformation was applied to the moderately negatively skewed WCST Total Errors variable. Reflect and inverse transformations were applied once to the substantially negatively skewed Benefit of Sharing and twice to each of the substantially negatively skewed AMT Total Specificity, AMT Positive Specificity, and AMT Negative Specificity variables. Following the adjustment of outliers and transformations of skewed variables, the normality assumption was met for each variable.

Following transformations, a one-way ANOVA was conducted to examine whether there were significant differences in AMT specificity among the three AMT administration groups (interview, computer, handwritten). The analysis indicated that AMT Specificity was statistically different for the three administration groups [F (2, 167) =5.747, p=.004]. The effect size was calculated using eta and the resulting eta squared value of .065 is considered a medium effect. Post-hoc comparisons using Tukey HSD test indicated that the mean score for interview group (M =.885, SD=.085) was

significantly different from both the computer (*M*=.928, *SD*=.077) and handwritten groups (*M*=.929, *SD*=.075). However, the computer and handwritten groups did not differ significantly. This finding is informative and suggests the necessity of controlling for AMT administration group in subsequent analyses examining AMT specificity.

An additional preliminary step included the examination of the relationships between the variables of interest using a bivariate correlation matrix. Missing values were handled using pairwise deletion in this analysis. Descriptive statistics and correlation coefficients for the variables are presented in Table 1. This step informed subsequent analyses used to specifically address each of the research questions that shape the aims of the current study.

The correlation matrix was first examined to determine whether the predictor variables of benefit of sharing, sharing frequency, memory valence, and gender were significantly associated with MIMS specificity. The only predictor variable that significantly correlated with Specificity on the MIMS was benefit of sharing (r_{pb}=-.165, *N*=174, *p*=.03). This negative correlation suggests that specificity on the MIMS is associated with experiencing higher benefit from sharing. This significant correlation suggests the importance of including the proposed predictor variable benefit of sharing in analyses that further explore MIMS specificity.

Second, the correlation matrix was examined to determine whether the proposed covariates measuring depression, avoidance, rumination, and impaired executive function were appropriate. The bivariate correlation matrix revealed that none of proposed covariates significantly correlated with MIMS specificity or predictor variables AMT total specificity, AMT positive specificity, and benefit of sharing.

Finally, the correlation matrix provides an initial examination as to whether the AMT specificity variables were significantly associated with MIMS specificity. There was a significant small positive relationship between MIMS specificity and the total AMT specificity score (r_{pb}=.155, N=170, p=.045), as well as the between the MIMS Specificity and the AMT Positive Specificity (r_{pb}=.232, N=170, p=.002). These correlations suggest that specificity on the MIMS is associated with higher levels of specificity on the AMT overall, as well as higher levels of specificity on just the positive AMT cues. The MIMS specificity and AMT Negative Specificity were also positively correlated, although this relationship was not significant (r_{pb}=.035, N=170, p=.648). These findings inform additional analyses examining the relationship between specificity on the MIMS and Specificity on the AMT.

Measures of depression and executive functioning were unrelated to measures of specificity. Depressive symptoms were higher than anticipated, with 67% of the participants having scores higher than 16, the cutoff score established to identify individuals at risk for clinical depression (Radloff, 1977). When using a higher cutoff score, i.e. 21, as suggested by other studies (see Smarr & Keefer, 2011 for review), only 27% of the participants have higher than 21. Other studies examining depression in college students have found similar prevalence rates as this study, for instance Mackenzie and Colleagues (2011) reported frequencies around 26%. Recent reviews have suggested that prevalence of mental health issues among colleges student have greatly increased, which may explain the higher prevalence rates among this sample (Hunt & Eisenberg, 2010). In terms of executive functioning, only 4% of the sample had standard scores of

84 and below, the cutoff for impairment in executive functioning (Greve, Stickle, Love, Bianchino, & Stanford, 2005).

Table 1. Means, Standard Deviation, and Bivariate and Pearson Correlations of Variables.

Total Sample	*M*	*SD*	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. MIMS Specificity	2.49	1.50	175	-													
2. AMT Total Specificity	0.87	0.13	170	**.155***	-												
3. AMT Pos. Specificity	0.86	0.16	170	**.232****	**.847****	-											
4. AMT Neg. Specificity	0.88	0.15	170	.035	**.831****	**.430****	-										
5. Benefit of Sharing	78.65	25.09	176	**-.165***	-.075	-.118	-.006	-									
6. Sharing Frequency	15.54	7.35	177	.037	-.063	-.125	.032	-.006	-								
7. Gender	1.77	0.42	177	-.085	-.012	-.111	.073	-.018	.016	-							
8. Memory Valence	1.51	0.50	175	.063	.025	.113	-.082	.041	.096	**-.208****	-						
9. CES-D	19.20	5.79	170	-.002	.064	-.006	.118	-.050	.058	-.019	-.133	-					
10. ERQ Total	43.23	7.99	177	-.070	-.052	.031	-.112	.016	**-.149***	-.127	.106	.094	-				
11. ERQ Suppression	13.77	5.54	177	.006	-.018	.026	-.041	-.065	-.115	**-.161***	.005	**.174***	**.674****	-			
12. RRS Total	42.98	12.05	177	.036	-.074	-.103	.002	-.127	.070	.109	-.038	**.645****	.077	**.168***	-		
13. RRS Brooding	3.13	3.23	177	.026	-.084	-.109	-.017	-.147	.088	.101	-.028	**.470****	.056	**.159***	**.837****	-	
14. WCST Total Errors	109.83	25.09	177	-.016	-.003	-.057	.007	-.010	.077	-.020	.084	.069	-.005	-.066	.090	.097	-
15. WCST Pers. Errors	108.27	12.66	175	.060	-.082	-.106	-.077	.019	.000	**-.169***	.121	.029	-.081	-.082	-.003	.021	**.744***

* Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2-tailed)

Note:

1. MIMS Specificity=Most Important Memory Scale Specificity
2. AMT Total Specificity=Autobiographical Memory Task Total Specificity
3. AMT Pos. Specificity=Autobiographical Memory Task Positive Specificity
4. AMT Neg. Specificity=Autobiographical Memory Task Negative Specificity
5. Benefit of Sharing=Ratio of times shared to perceived benefit of sharing on MIMS
6. Sharing Frequency=Sharing frequency measured on the MIMS
8. Memory Valence=Coded valence of MIMS Memory
9. CES-D=Center for Epidemiologic Studies Depression Scale
10. ERQ Total=Emotion Regulation Questionnaire Total
11. ERQ Suppression=Emotion Regulation Questionnaire Suppression Dimension
12. RRS Total=Rumination Response Scale Total
13. RRS Brooding=Rumination Response Scale Brooding Dimension
14. WCST Total Errors=Wisconsin Card Sorting Test Total Errors
15. WCST Pers. Errors=Wisconsin Card Sorting Test Perseverative Errors

Analyses

Descriptive statistics: characteristics of sharing. This section focuses on addressing two of the research questions: *With whom are emerging adults more likely to share their AMs and what are the most common perceived benefits of sharing?* And, *Will there be gender differences in perceived benefit of sharing?* Basic descriptive analyses were performed to examine the sharing characteristics relating to the MIMS among this sample of emerging adults. Overall percentages for the sample and for each group were examined to identify the most common group of people significant life events are shared with, the most common method of sharing, and most common reasons for sharing. Chi square analyses were conducted to identify gender differences in these variables. Sharing frequency and gaining perspective from sharing were each calculated by computing new variables. Gender differences were subsequently examined using independent t-tests.

Sharing audiences. The most common groups of people this sample shared with were close friends (98%) and parents (95%). Significant gender differences were present for the sample overall when sharing with strangers [males>females, $c^2(1, N = 177) = 5.09, p = .024$] and with therapists [females>males, $c^2(1, N = 177) = 4.59, p = .032$]. The percent of the sample that shared with each group and gender differences are presented in Figure 1.

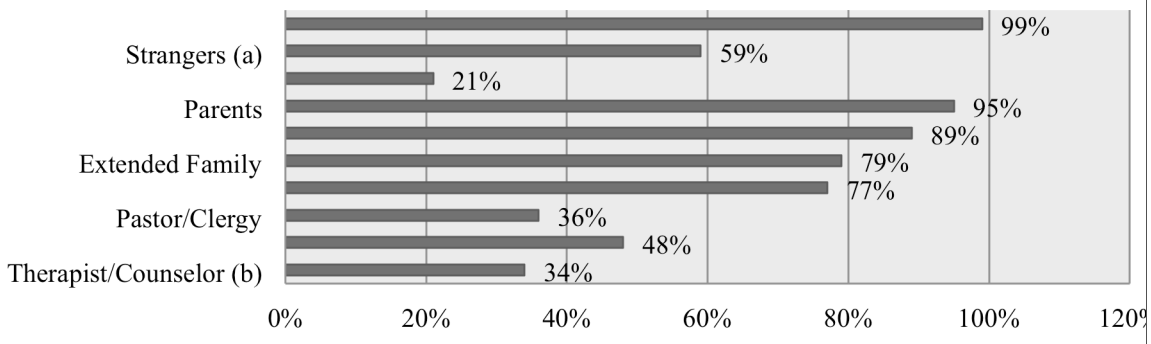

Figure 1. Overall Sample's Most Common Sharing Audiences. Participants were allowed to identify sharing with more than one group of people; therefore items are not mutually exclusive. The percentages reflect the proportion of the sample that endorsed sharing with that group. Statistics above are based on combined percentages from both gender groups. To identify gender differences, chi square analyses were conducted. Differences are distinguished with a letter footnote and chi square results are provided below.

Sharing method. The most common method of sharing for the sample overall was verbally in person (99%). The percentages of the overall sample that used the different methods of sharing are presented in Figure 2. Table 2 presents the most common methods used by each groups. To determine the most common reason for sharing the different groups were collapsed and overall percentages were examined, see Figure 3 for percentages. Chi Square tests were performed to determine if males and females differed in the sharing methods used. When not considering the audience (i.e., with whom they were sharing), the chi square test did not show significant gender differences across all six sharing methods. However, there were several significant gender differences when analyzing sharing methods used with specific groups, see Table 2 for significant results. Females reported sharing verbally in person significantly more than males with therapists/counselors [c^2 (1, N = 177) = 4.928, p =.026]. When sharing with parents, males reported sharing significantly more than females verbally over the phone [c^2 (1, N

= 177) = 5.206, p = .022] and with social media [c^2 (1, N = 177) = 4.167, p = .041].

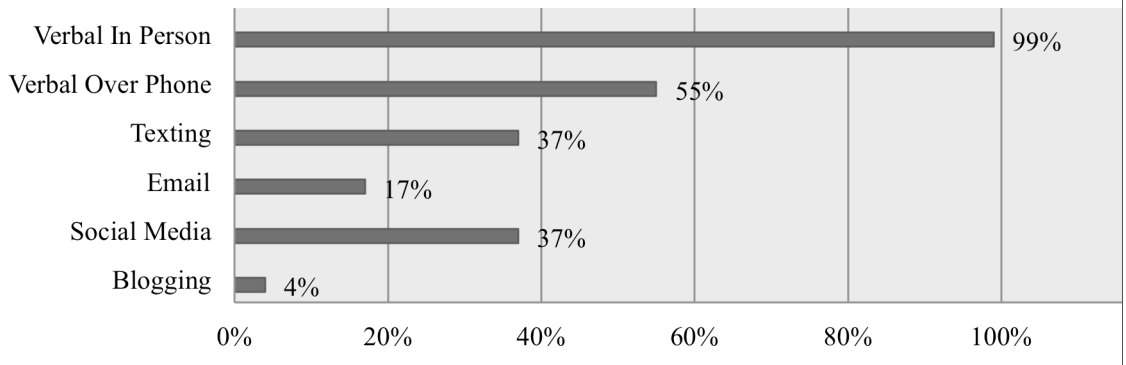

Figure 2. Overall Sample's Most Common Methods of Sharing. Participants were allowed to identify more than method of sharing; therefore items are not mutually exclusive. The percentages reflect the proportion of the sample that endorsed using each method of sharing. Statistics above are based on combined percentages from both gender groups. To identify gender differences, chi square analyses were conducted, however no significant gender difference were found for the overall sample and the reasons for sharing.

Table 2. Most Common Methods of Sharing.

	Verbal in Person	Verbal over Phone	Texting	Email	Social Media	Blogging
Close Friends	**90%**	27%	27%	3%	21%	1%
Acquaintances	**34%**	5%	10%	2%	23%	0%
Strangers	**11%**	0%	1%	0%	1%	3%
Parents	**90%**	25%[a]	11%	4%	7%[b]	0%
Siblings	**80%**	19%	11%	1%	12%	0%
Extended Family	**56%**	31%	9%	7%	13%	0%
Significant Other	**70%**	16%	19%	2%	10%	1%
Pastor/Clergy	**36%**	2%	2%	2%	4%	1%
Teacher	**42%**	2%	1%	7%	2%	1%
Therapist/ Counselor	**34%**[c]	0%	0%	1%	0%	1%

Note:
Participants were allowed to identify more than method of sharing; therefore items are not mutually exclusive. The percentages reflect the proportion of the sample that endorsed using each method of sharing. Statistics above are based on combined percentages from both gender groups. To identify gender differences, chi square analyses were conducted. Differences are distinguished with a letter footnote and chi square results are provided below.
[a]39% males > 21% females; c^2(1, N = 177) = 5.206, p =.022
[b]15% males < 5% females; c^2(1, N = 177) = 4.167, p = .041
[c]20% males < 38% females; c^2 (1, N = 177) = 4.928, p = .026

Reasons for sharing. Figure 3 and Table 3 present the most common reasons for sharing for the overall sample and for each group. Self-Explanation (72%) and validation (70%) were the most common reasons for sharing in this emergent adult sample. Self-explanation was the most common reason for sharing for most groups, except when sharing with parents, siblings, significant others, pastor or clergy, and therapist or counselor. Often self-explanation was the second most common reason within these groups. Validation was the most common reason for sharing with parents and siblings. Intimacy was the most common reason for sharing with significant others. Problem-solving was the most common reason for sharing with pastors/clergy and therapists/counselors. Chi Square tests were performed to determine if males and females differed in the reasons they shared impactful memories with others. The test indicated significant gender differences for the overall sample on two reasons for sharing. Significantly more females than males reported sharing for the reason of meaning making [c^2 (1, N = 177) = 4.429, p = .0353] and the reason of comfort [c^2 (1, N = 177) = 10.113, p = .001].

There were also several significant gender differences when analyzing reasons for sharing with specific groups. Females reported sharing significantly more than males with parents for the purpose of comfort, c^2 (1, N = 177) = 5.234, p = .022. When sharing with therapists/counselors, females reported sharing significantly more than males for the purpose of problem solving [c^2 (1, N = 177) = 7.78, p =.005] and self-explanation [c^2 (1, N = 177) = 5.82, p = .015]. Males reported sharing significantly more than females with strangers for the purpose of validation, c^2 (1, N = 177) = 4.346, p = .037. Males reported sharing significantly more than females with significant others for the purpose of

validation, c^2 (1, N = 177) = 9.48, p = .002. When sharing with teachers, males reported sharing significantly more than females for the purpose of intimacy [c^2 (1, N = 177) = 6.66, p =.01] and meaning seeking [c^2 (1, N = 177) = 7.21, p =.007] .

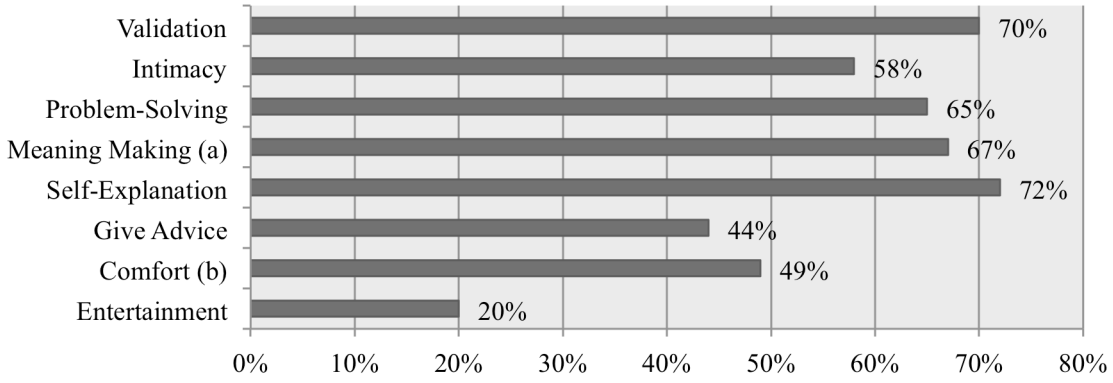

Figure 3. Overall Sample's Most Common Reasons for Sharing with Others. For each group participants were allowed to identify more than one reason for sharing, therefore items are not mutually exclusive. The percentages reflect the proportion of the sample that endorsed that reason for sharing. Statistics above are based on combined percentages from both gender groups. To identify gender differences, chi square analyses were conducted, however no significant gender difference were found for the overall sample and the reasons for sharing.

Table 3. Most Common Reasons for Sharing with Others.

	Validate	Intimacy	Problem Solving	Meaning Making	Self-Explanation	Give Advice	Comfort	Entertain
Close Friends	45%	33%	33%	27%	**53%**	23%	29%	14%
Acquaintances	13%	5%	6%	10%	**22%**	10%	10%	9%
Strangers	6%[a]	1%	1%	2%	**7%**	1%	1%	3%
Parents	**52%**	26%	**51%**	47%	33%	11%	33%[b]	9%
Siblings	**43%**	26%	29%	28%	33%	19%	31%	10%
Extended Family	**24%**	13%	20%	19%	**25%**	5%	16%	7%
Significant Other	34%[c]	**42%**	21%	23%	**39%**	8%	17%	9%
Pastor/Clergy	12%	4%	**15%**	11%	13%	3%	6%	2%
Teacher	15%	4%[d]	13%	9%[e]	**19%**	2%	4%	6%
Therapist/ Counselor	17%	3%	**21%**[f]	14%	**18%**[g]	3%	5%	1%

Note:
For each group participants were allowed to identify more than one reason for sharing, therefore items are not mutually exclusive. The percentages reflect the proportion of the sample that endorsed that reason for sharing. Statistics above are based on combined percentages from both gender groups. To identify gender differences, chi square analyses were conducted. Differences are distinguished with a letter footnote and chi square results are provided below.
[a]12% males > 4% females; $c^2(1, N = 177) = 4.346$, $p = .037$
[b]17% males < 36% females; $c^2(1, N = 177) = 5.234$, $p = .022$
[c]54% males > 28% females; $c^2(1, N = 177) = 9.48$, $p = .002$
[d]10% males > 2% females; $c^2(1, N = 177) = 6.66$, $p = .01$
[e]20% males > 6% females; $c^2(1, N = 177) = 7.21$, $p = .007$
[f]5% males < 25% females; $c^2(1, N = 177) = 7.78$, $p = .005$
[g]5% males < 21% females; $c^2(1, N = 177) = 5.82$, $p = .015$

Sharing frequency. Sharing frequency was calculated by totaling the sharing frequency ratings for each group. An independent t-test was run to examine whether there are gender differences in the frequency of sharing impactful memories. Male (M=15.31, SE=1.34) and female (M=15.60, SE=.60) participants showed no significant gender difference in sharing frequency [$t(175)$=-0.195, p=.846]. Because Levene's test of equality of variance was significant (p=.01), the t-test statistics with equal variances not assumed was used to test this gender difference.

Gaining perspective/benefitting from sharing. To quantify the benefit of sharing, the percent of the number of groups gained perspective when shared over number of

groups shared with was calculated. For instance if a subject shared with seven of the ten groups and reported sharing beneficial for six of those seven groups, the benefits of sharing value would be 85.71. Data screening led to the transformation of 6 outliers to the minimum value and a reflect and inverse transformation to meet the assumption of normality. An independent t-test was performed to determine if males and females differed in gaining perspective from sharing. On average, males (M=0.45, SE=0.08) and females (M=0.43, SE=0.04) benefited about the same amount of times. Levene's test of equality of variance was not significant (p=.02), therefore the t-test statistics with equal variances assumed was examined. No significant gender difference was found for benefits of sharing [$t(174)$=0.234, p=0.815].

Inferential statistics: specificity. This section focuses on addressing several of the research questions related to exploring AM specificity: *Will there be gender differences in the MIMS specificity and AMT Specificity? Will the perceived benefits of sharing and the frequency in which MIMS memories are shared be associated with greater specificity? Are there similarities in memory specificity between the AMT and the MIMS?* And, *Will factors that predict specificity on the MIMS predict specificity on the AMT as well?* Independent t-tests and chi square analysis, binary logistic regression analysis, and multiple regression analysis were conducted to address the respective research questions.

Gender. Several independent t-tests were run to examine whether there were gender differences in the specificity of AMs on the AMT. Levene's test of equality of variance was not significant (p>.05) for each of the analyses and so, the t-test statistics with equal variances assumed were examined. No significant gender difference were

found for AMT total specificity [$t(168)=0.157$, $p=.876$], AMT positive specificity [$t(168)=1.45$, $p=.149$], or AMT negative specificity [$t(168)=-0.951$, $p=.343$]. A chi square analysis was run to examine gender differences on the MIMS. No significant gender differences were found for MIMS specificity [c^2 (1, N = 175) = 1.257, p = .262]. Overall, males and females recalled AMs with similar levels of specificity on the MIMS and AMT. Since there were no significant gender differences on the measures of specificity, gender was not controlled in subsequent analyses involving specificity.

MIMS specificity. Overall about 50% of the sample recalled specific AMs on the MIMS. In terms of valence, 48% of the specific memories and 53% of the OG memories were positive. Both the researched supported hypotheses and preliminary analyses informed the selection of variables included in the binary logistic regression. It was hypothesized that benefits of sharing, frequency of sharing, and gender would be predictive of specificity; it was necessary to control for depression, avoidance, rumination, and impaired executive function; and, AMT total, positive, and negative specificity would be predictive of MIMS specificity. The preliminary ANOVA conducted indicated that there were significant differences in AMT specificity based on AMT administration group, which therefore suggested that the effect of the AMT administration group should be controlled. The preliminary bivariate correlation analyses conducted suggested that MIMS specificity was only significantly associated with benefits of sharing, AMT total specificity, and AMT positive specificity. Since the current study is exploratory in nature, the binary logistic regression model was run with and without significantly correlated proposed predictors of MIMS specificity using a forward stepwise approach to ensure that the appropriate predictors and covariates were

included. None of the non significant correlated variables were retained in the model. The resulting binary logistic regression model which analyzes specific verses OG AM's recalled on the MIMS therefore only included the significant correlated variables.

In this model, MIMS specificity was set as the dichotomous outcome variable. The administration group was dummy coded as a categorical indicator in the first block. The method used for Block 1 was enter to control for AMT group differences throughout the model. In the second block, benefit if sharing was entered and forward stepwise method was used to identify whether benefit of sharing was a significant predictor. AMT Total and Positive Specificity were entered into Block 3 and the forward stepwise method was used again. After the model was run, a multiple regression analysis was conducted to check for multicollinearity among the significant predictors. The analysis revealed all predictors had tolerance statistics over 0.1, which indicated that multicollinearity among the predictors was not a concern.

Regression results indicated that the block 1 model fit was questionable and not statistically significant in distinguishing specificity (-2 Log Likelihood= 232.507), c^2 (2, $N = 168$) = .367, $p = .833$). The block 1 model correctly classified only 52.4% of the cases. Regression coefficients are presented in Table 4. Since the Wald statistic is quite conservative, a more liberal significance level ($p<.1$) is suggested (Tabachnick & Fidell, 2007). Wald statistics indicated that the AMT administration group does not significantly ($p>.1$) predict MIMS specificity. The odd ratios for these variables indicated little change in the likelihood of specificity when the administration group was decreased by 1. The logistic regression equation showed that AMT administration was not significantly predictive of retrieving a specific memory on the MIMS.

Regression results indicated that the block 2 model fit, which included benefits of sharing and AMT administration group, was also questionable and not statistically reliable in distinguishing between specific and overgeneral memories (-2 Log Likelihood= 227.889, c^2 (3, N = 168) = 4.985, p = .173). The block 2 model correctly classified 58.3% of the cases. The addition of benefits of sharing to the model improved the model fit. The predictor benefits of sharing was statistically significant in distinguishing specificity c^2 (1, N = 168) = 4.618, p = .032). Regression coefficients are presented in Table 4. The *Wald* statistics indicated that the predictor benefits of sharing significantly predict MIMS specificity. The odd ratio for benefits of sharing indicated moderate change in the likelihood of specificity when the predictor decreased by 1. The logistic regression equation showed that perceiving sharing as beneficial was significantly (p<.1) predictive of retrieving a specific memory on the MIMS. However the combination of benefits of sharing and AMT administration group is not significantly predictive.

Although both AMT Total specificity and AMT positive specificity were added in block 3, only AMT positive specificity was retained in the model. Regression results indicated that the block 3 model fit of the predictors (AMT administration group, benefits of sharing, and AMT positive specificity) improved and was statistically reliable in distinguishing between specific and overgeneral memories (-2 Log Likelihood= 218.081, c^2 (4, N = 168) = 14.793, p = .005). The block 3 model of predictors correctly classified 61.3% of the cases. The addition of AMT positive specificity to the model improved the model fit. The *Wald* statistics indicated that both AMT positive specificity and benefits of sharing significantly (p<.1) predict MIMS specificity. The odd ratio of AMT positive

specificity indicated significant change in the likelihood of specificity when the predictor is increased by 1. The odds ratio of benefits of sharing continued to indicate moderate change. The logistic regression equation showed that perceiving sharing as beneficial and higher levels of positive specificity on the AMT is significantly predictive of retrieving a specific memory (either positive or negative) on the MIMS.

For exploratory purposes the model was run with positive MIMS memories only. Regression results indicated that the overall model of AMT administration group, benefits of sharing, and AMT positive specificity as predictors was statistically reliable in distinguishing between specific and overgeneral positive memories (-2 Log Likelihood= 100.687, c^2 (4, N = 85) = 16.194, p = .003). The overall model correctly classified 65.9% of the cases. The *Wald* statistic indicated that both AMT positive specificity and benefits of sharing significantly (p<.1) predict positive MIMS specificity. The odds ratio of AMT Positive Specificity indicated significant change in the likelihood of specificity when the predictor is increased by 1. The odds ratio of benefits of sharing continued to indicate moderate change. The logistic regression equation showed that perceiving sharing as beneficial and higher levels of positive specificity on the AMT is more significantly predictive of retrieving a specific positive memory on the MIMS.

Table 4. Logistic Regression Coefficients: Model predicting MIMS Specificity.

Independent Variable	*B*	*SE*	*Sig.*	*Wald*	*Exp (B)*
Block 1 (Enter)					
AMT Administration Group			.366	.833	
AMT Administration Group (1)	.035	.384	.008	.927	1.036
AMT Administration Group (2)	-.176	.377	.218	.641	.839
Constant	.074	.272	.074	.786	1.077
Block 2 (Forward)					
AMT Administration Group			.249	.883	
AMT Administration Group (1)	-.008	.389	.000	.984	.992
AMT Administration Group (2)	-.168	.382	.192	.661	.846
Sharing Benefit	-.708	.332	4.549	.033	.492
Constant	.392	.314	1.558	.212	1.480
Block 3 (Forward)					
AMT Administration Group			1.446	.485	
AMT Administration Group (1)	.318	.417	.582	.446	1.374
AMT Administration Group (2)	-.172	.394	.190	.663	.842
Sharing Benefit	-.598	.343	3.042	.081	.550
AMT Positive Specificity	6.524	2.147	9.230	.002	681.352
Constant	-5.726	2.036	7.906	.005	.003

Note*:*

Block 1: model χ^2 =367, *df*=2, *p*=.833, Nagelkerke R Square =.003

Block 2: model χ^2 =*4.985*, *df*=3, *p*=.173, Nagelkerke R Square =.039

Block 3: model χ^2 =*14.793, df*=4, *p*=.005, Nagelkerke R Square = .112

AMT specificity. As reported earlier, the bivariate correlation matrix indicated that AMT total specificity and AMT positive specificity were both significantly correlated with MIMS specificity. See Table 1 for correlation coefficients. The correlations suggest that specificity on the MIMS is associated with higher levels of specificity on the AMT overall, as well as higher levels of specificity on just the positive AMT cues. It is important to note that participants were asked to report whether the most important memory recalled on the MIMS was recalled in response to a cue on the AMT. Interestingly, about 42% of the sample indicated the same memory was recalled on both measures collecting AMs, which indicates there is some overlap in the AMs collected by these two measures. A chi square analysis was conducted to examine whether there were

differences in the valence of the MIMS memory when shared or not shared on the AMT. About 67% of participants who shared a positive MIMS shared the same memory on the AMT, whereas only 40% of participants who shared a negative MIMS shared it during the AMT. The Chi square analysis indicated the difference between the groups was statistically significant [c^2 (1, N = 174) = 12.843, p = .003]. This finding suggests that positive MIMS memories were more likely recalled on the AMT.

The binary logistic regression analysis indicated that when controlling for AMT administration group, benefits of sharing and AMT positive specificity were significant predictors of recalling a specific memory on the MIMS. Several multiple regression analyses were then run to determine whether MIMS specificity significantly predicted AMT specificity, as well as whether benefit of sharing significantly predicted AMT specificity as it did MIMS specificity. Tolerance statistics were examined to determine if multicollinearity was a concern among the predictors in each regression analysis. Tolerance statistics were all above 0.1, indicating multicollinearity was not a concern.

A multiple regression analysis was then conducted to identify whether the variables that predicted MIMS specificity also predicted AMT total, positive, or negative specificity. AMT total specificity was set as the DV. AMT administration group was added in the first block using the enter method to control for group differences in specificity. In the second block, the predictors MIMS specificity and benefits of sharing were added using the stepwise method. Regression results indicated that the overall model with AMT administration group and MIMS specificity significantly predicted AMT total specificity [R^2=.1, R^2_{adj}=.089, F(2,166)=9.246, p<.001]. This model accounted for 10% of variance in AMT total specificity. The variable benefits of sharing was

excluded from the model because it did not significantly (p>.05) contribute to the model predicting AMT total specificity. The analysis was repeated with AMT positive specificity set as the DV. The outcome of the analysis was similar with AMT administration group and MIMS specificity significantly predicting AMT positive specificity [R^2=.103, R^2_{adj}=.092, F(2,166)=9.551, p<.001]. When the analysis was repeated with AMT negative specificity set as the DV, only AMT administration group was retained in the model [R^2=.052, R^2_{adj}=.046, F(2,166)=9.172, p<.001

CHAPTER IV

DISCUSSION

The purpose of the current study was to examine sharing practices and specificity of AM among emerging adults, as well as explore methodological differences in collecting AMs. The findings of the current study suggest that sharing practices among emergent adults are characterized by sharing significant life events most commonly with close friends, verbally in person, and for the purposes of self-explanation and validation. Findings also suggest that perceiving sharing as beneficial and specificity of positive AMT cues are significant predictors of retrieving a specific memory on the MIMS. Few significant gender differences were found in sharing practices, and no significant gender differences were found in specificity across both measures of AMs. These findings, aimed at address the research questions posed in the introduction, are discussed in greater detail below.

With whom are emerging adults more likely to share their AMs? The most common audiences for this sample were close friends and then parents, which is consistent with previous research examining audience preference (McLean, 2005; Syed, 2012). These results confirm that relationships with peers and communication with peers are of central focus among emergent adults and also contribute to other research examining the developmental stage and social goals of emergent adulthood (Pasupathi & Hoyt, 2009). The most common method of sharing among this sample was verbally in

person (99%), which suggests that sharing an important memory verbally in person is still the most common and preferred method for emergent adults. Overall, about 37% of the sample reported using social media to share a most important memory. The highest rates of social media use among groups included 23% used social media to communicate their memory to acquaintances and 21% to close friends. These findings are interesting in light of the fact that the use of social media and technology is at an all time high among emergent adults (Brenner & Smith, 2013). One possible explanation might be that, although the use of social media is at an all time high among emergent adults, offline connections appear to be still valued and most important memories are still most commonly shared verbally in person. Research examining the use of social media among emerging adults indicates that most use the Internet and social networking sites to connect and reconnect with friends and family (Steinfield, Ellison, & Lampe, 2008; Subrahmanyam, Reich, Waechter, & Espinoza, 2008). As such, Subrahmanyam and colleagues have asserted that the use of online connections seems to strengthen offline connections. An alternative explanation for the relatively lower proportion of online sharing might be that, with social media being a relatively new medium of communication, participants might have had greater opportunity to share these memories over their life course via other means before social media was made available. If that is the case, follow-up studies might see a shift towards a greater proportion of sharing online among cohorts of emerging adults raised in the social media age.

What are the most common perceived benefits of sharing? For this emerging adult sample, self-explanation (defined as "to help others understand you") and validation (defined as "to legitimize your thoughts or feelings and/or to feel supported") were

overall the most common reasons for sharing. Self-explanation was hypothesized to be the most common reason for sharing; however intimacy (defined as "to feel closer to someone"), not validation was hypothesized to be the second most common reason for sharing. These results are generally consistent with previous research. For instance, self-explanation has been found to be the most common reason for sharing in other research with adolescent and emerging adult populations (McLean, 2005; Pasupathi, Henry, & Carstensen, 2002). It was expected that the developmental challenge of building intimate relationships would prompt sharing for the reason of intimacy to be one of the most common reasons for sharing. Intimacy was not the most common reason with close friends, however, it was most the most common reason for sharing with significant others. This finding is interesting as it may provide some insight into emergent adulthood relationships—seeking validation, which often characterizes adolescent peer relationships, continues to be central within emerging adulthood peer relationships. Validation was the most common reason for sharing with parents and siblings, which is in fact supported by previous research exploring reasons for sharing with parents and peers (Syed, 2012). A suggestion for future research may be to explore the reasons for sharing across the different ages of adulthood to understand how reasons for sharing may fit with the developmental challenge of building intimate relationships in emergent adulthood.

Will there be gender differences in perceived benefits of sharing? Overall there were fewer significant gender differences within the results than expected. There were no significant gender differences in sharing frequency. Although previous research is mixed, McLean (2005) also expected and did not find significant gender differences in

sharing frequency. Interestingly, males and females also did not differ significantly in perceiving benefit from sharing. These results suggest there may be a misconception that females share more and benefit more from sharing than men.

Some significant gender differences in reasons for sharing were found, but not for the reasons that were hypothesized. The study found that significantly more females than males reported sharing for meaning seeking (defined as "to better understand the memory") and comfort (defined as "to support and comfort others"). However, previous research examining similar reasons for sharing found no differences in meaning seeking and comfort, but did find significant gender differences for the reasons of entertainment (defined as "to entertain others") and intimacy (defined as "to feel closer to someone"), such that males shared more for entertainment reasons and females for intimacy (McLean, 2005; Webster, 1995). Although the study's results are inconsistent with previous research, the findings are noteworthy because previous studies have expected to find gender differences in meaning seeking and have not (McLean, 2005; McLean & Breen, 2009; McLean & Pratt, 2006). This finding provides preliminary evidence that gender differences in meaning seeking may exist, however more research with a larger representative sample of males may be necessary to strengthen this conclusion.

Will there be gender differences in the MIMS specificity and AMT specificity? No significant gender differences were found in MIMS specificity or AMT specificity. These findings are inconsistent with previous research that shows females recall memories with higher specificity than males (Heron, et al., 2012; Davis, 1999). However, other studies have also failed to find gender differences in AM specificity (Rawal & Rice, 2012; Ros & Latorre, 2010). Since the current study's sample is not

equally distributed on gender, a larger representative sample of males may therefore be helpful to further evaluate these findings.

Will the perceived benefits of sharing and the frequency of sharing MIMS memories be associated with greater MIMS specificity? Previous research has explored associations among sharing memories, insight, and meaning making (Bird & Reese, 2006; McLean, 2005; Pasupathi, 2001); however, no study has explicitly examined the relationship between benefit of sharing and specificity. The current study's findings extend previous research, which asserts memory sharing fosters self-understanding (McLean, et al., 2007; McLean & Pratt, 2006), and suggests that coconstruction and benefiting from sharing may serve to enhance AM specificity. The current study found that the variable benefits of sharing was significantly associated with MIMS specificity, but the frequency of sharing these memories was not. This finding suggests that when sharing a most important memory it may be an issue of quality of sharing verses quantity of sharing. Quality of sharing, as measured by perceived benefits of sharing, may be a stronger predictor of specificity than frequency of sharing that memory with others.

One possible explanation for the link between memory and perceived benefit of sharing may be that individuals whom have a history of benefiting from sharing a given memory may be may be more apt to sharing the memories in greater detail in the laboratory setting, whereas individuals may minimize details related to an event if they have experienced little benefit from sharing it in the past. Another possibility is that benefiting from sharing memories with others might help solidify and increase the saliency of important memories. Previous research has found that the attentiveness and

responsiveness of listeners can influence what the speaker shares, for instance, when speakers interpreted listeners as distracted or uninterested, they shared shorter, less detailed, and less structured narratives, which later impacted memory of the event discussed (Pasupathi & Hoyt, 2007; Pasupathi, Stallworth & Murdock, 1998; McLean et al., 2007). Research has also shown that sharing with distracted listeners also impacts how speakers later view the interaction and memory shared. For instance, Laurenceau, Barrett, & Pietromonaco (1998) found that when speakers' perceived the listener as responsive, they disclosed more and also rated the sharing interaction to be higher in intimacy. Pasupathi & Hoyt (2009) reported that more meaning fulfilled narratives were constructed for responsive friends. Other research suggests that the lack of responsiveness changes the interaction and in that process the speaker does not feel verified and they view the memory as less interesting (Pasupathi & Rich, 2005). An area for future research may therefore be to examine the relationship between specificity, perceived benefit of sharing, and perceived attentiveness of listeners.

The lack of association between MIMS specificity and the perceived frequency of sharing was somewhat surprising, given that research has indicated sharing with more people is predictive of specificity (Manier et al, 1996). However other researchers have failed to provide evidence that frequency of sharing is an important factor in memory sharing research (McLean, 2005). One explanation for this finding might be that frequency simply provides no influence on the specificity of recalling memories. Another possibility is that our method of measuring the frequency of sharing, which relied of retrospective reports, may not be sensitive enough to detect association between sharing frequency and specificity. Because prior research is limited, examination of sharing

frequency was considered in an exploratory fashion. An area for future researchers may be to examine frequency of sharing using other methods such as daily monitoring, i.e. through diary entries or social media history. The daily monitoring approach may provide a more accurate record of the frequency to which important memories are shared.

Are the levels of specificity of memories elicited by the AMT similar to the level of specificity of self-perceived impactful and meaningful AMs disclosed using the MIMS? There are various indications of overlap between the memories and level of specificity recalled in response to the AMT and MIMS cues. About 42% of the sample reported sharing the same memory on the MIMS and AMT. This suggests that for most participants the AMT failed to capture memories participants identified as being most important. Interestingly, when looking at only positive MIMS memories, 67% were shared on the AMT. Therefore, the AMT was better at capturing most important memories that were positive in nature.

In terms of specificity, higher levels of specificity on AMT positive cues and AMT total specificity were significantly correlated with specificity on the MIMS. However, specificity on AMT negative cues was not significantly correlated with specificity on the MIMS. This latter finding is difficult to explain. One might assume that this lack of association might stem from great variability in the specificity of negative AMT response, as some participants might have had greater difficulty providing specific details for negative autobiographical memories than positive ones, but the standard deviations and mean number of negative and positive specific memories were near identical. It appears that other factors must be contributing to the variability in the

specificity of negative response to the AMT, factors that were not accounted for in the current study (given the lack of correlation with any of the included measures).

Previous research has found that levels of specificity vary in response to different instructions, such that an untimed version of the AMT predicted greater memory specificity (Bunnell & Greenhoot, 2012) and shorter time limits on the AMT impacted the type of memory retrieved and level of specificity (Williams, Healy, & Ellis, 1999). The findings of this study provide further evidence of the variability in memories recalled and specificity levels in response to different time limits and prompts collecting AMs. Since this study is one of the first multi-method assessments of AM specificity that compares different methods using a within-subject design, it is necessary for this study to be replicated and additional multi-method studies conducted to confirm or disprove these results.

Will factors that predict specificity on the MIMS predict specificity on the AMT as well? Benefit of sharing was a significant predictor of MIMS specificity, however it did not significantly contribute to either of the models predicting AMT total, positive, or negative specificity. MIMS specificity did significantly contribute to each of the models predicting AMT total and AMT positive specificity, but did not significantly contribute to AMT negative specificity. A possible explanation as to why benefit of sharing did not significantly contribute to the model predicting AMT total or positive specificity is that the link between memory specificity and benefits from sharing might be specific to a given memory and not necessarily indicative of a general emotion sharing style.

Surprisingly, the specificity of both the MIMS and AMT autobiographical memories were unrelated to the measure of depression, emotional regulation, and executive functioning. This finding is inconsistent with other studies showing links between autobiographical memory specificity and measurements of adjustment (Bunnell & Greenhoot, 2012; Maestas & Rude, 2012; Williams et al. 2007). Many of these studies have used data from clinical samples (for a review see Williams et al. 2007). Although scores on measures of depression and executive functioning in the current study might be lower than would be expected in a clinical sample, links between autobiographical memory specificity and psychological adjustment have been found in studies using college samples (Bunnell & Greenhoot, 2012; Maestas & Rude, 2012).

Limitations and Future Directions

There are a number of limitations, both broad and specific, that may have influenced the results. One broad limitation is the use of a homogeneous college sample, instead of emergent adult participants from the general public. According to the National Center for Education Statistics, only 30% of the 18-24 year old United States population was enrolled in a 4-year institution in 2011, indicating that college students at a 4-year institution do not represent the majority of the 18-24 year old U.S. population (2012). Although the ethnic distribution of the participants was similar to the region the population was selected from, this distribution is not similar to the general population of the United States as found in the latest Census (Humes, Jones, & Ramirez, 2011). Replication of the findings of this study with a community sample would increase the generalizability of the results.

A related limitation is that the current study used a college sample. Although a number of study have explored specificity of autobiographical memories using collect samples (Bunnell & Greenhoot, 2012; Maestas & Rude, 2012), many of the studies showing the strongest predictor of memory specificity have relied on clinical samples (Williams et al. 2007). Future studies aimed at replicating the current study design using clinical samples would allow researchers to better identify (1) whether the magnitude of depressive symptoms might moderate the associations among MIMS specificity, AMT specificity, and the other measures used in the study, and (2) whether clinical populations might report important differences in sharing practices and perceived benefits of sharing.

Another broad limitation includes the unequal gender distribution of the participants. The gender distribution of the participants did not reflect that of the University, region, or United States (National Center of Education Statistics, 2012) (University of North Dakota, 2012). As mentioned above, previous research has indicated significant gender differences in memory specificity and memory sharing, however this study failed to replicate such findings. The unequal gender distribution may also have contributed to the minimal findings of significant gender differences. Future research is therefore needed with a larger, more adequate sample size of male participants to discount or strengthen the study's findings.

Using retrospective self-reported data is another limitation of the study because self-reported data limits the study's ability to make causal inferences from the findings. This appears to be a common limitation shared among the few studies that have focused on sharing meaningful memories (McLean, 2005; McLean & Breen, 2009), which highlights the importance of additional studies that look at the longitudinal effects of

sharing on memory specificity. Possible methods of looking at memory sharing over time might include having participants record their sharing behavior is a daily journal, tracking sharing behavior via social media posts, or other methods.

Another limitation of the study is the use of a non-validated measure, the MIMS, to examine memory sharing. The MIMS was developed specifically for the study and so there is no research supporting its psychometric properties or use. Many of the MIMS questions produced data that was not continuous (e.g. frequency of sharing), was not mutually exclusive (e.g. reasons for sharing), or did not account for variability within groups, which all imposed limitations on data analysis. However, previous research has stated that reasons for sharing may not be mutually exclusive and so it is limiting to measure it as such (McLean, 2005). Future researchers may want to revise the questions and response options as to gather continuous data and mutually exclusive data. Another area for future research may be to examine perceived benefit of sharing in more detail and account for variability within groups. Additional research is therefore needed to further develop, as well as validate the MIMS.

Conclusion

Researchers have identified the need for more research on the process by which memories and identity are socially constructed (McLean, 2005). This study begins to address this need by providing a picture of how important experiences are socialized in emergent adulthood. The results from this study suggest that emerging adults most commonly share important experiences with close friends and that they still value sharing important memories in person even with the surge in social media and technology use. The results also suggest that quality of sharing (in terms of the perceived benefits) may

be more important than quantity of sharing. Examining the relationship between coconstruction and the benefit of sharing with specificity is novel. This study suggests that the process of sharing and perceiving benefit from sharing are predictive of recalling specific AMS. Therefore sharing important memories and gaining perspective and perceiving the sharing as beneficial may enhance memory specificity. This study provides necessary support for exploring the relationship between benefits of sharing, coconstruction, and specificity further. The need to examine methods of collecting AMs has also been highlighted and this study successfully examines two methods of collecting AMs. The study shows how specificity is similar and varies across these two methods. The evidence of similarity between MIMS specificity and AMT total and positive specificity suggests that the MIMS should be analyzed with the factors previously found to be significantly associated with AMT specificity, i.e. well-being, improvements in mental and physical health, emotion regulation, life satisfaction, self-esteem Although, there are several limitations due to the nature and design of this study, it is hoped that this exploratory study will led to more in-depth longitudinal research in the future.

APPENDIX

Appendix A
The Most Impactful Memory Sharing Scale

MIMS
Initial Prompt:

1. Give a brief description of a specific experience that has had the most impact and influence on your life.

_____
_____
_____
_____
_____
_____

Questions clarifying the initial prompt:

2. Was this memory disclosed in the previous memory exercise?

Yes	No

3. How old were you when this event occurred?

_____

4. Was the event itself positive or negative?

Neutral	**Overall Negative**	**Mixed**	**Overall Positive**

5. Looking back on the event now, was the overall impact of the event positive or negative?

Neutral	**Overall Negative**	**Mixed**	**Overall Positive**

Thinking about the memory that you have just discussed in Question 1 please answer the following questions:

6. How many times have you discussed or shared this memory with the following groups of people in your life?

Relationship	**Never**	**1 - 2**	**3-5**	**6-10**	**10+**
Close Friends					
Acquaintances					
Strangers					
Parents					
Siblings					
Extended Family Members (i.e. aunt, grandparent, or cousin)					
Significant Others/Romantic Partners					
Pastor/Clergy Members					
Teachers					
Therapists/Counselors					

7. How was this memory shared with the following groups of people in your life?

Relationship	**Never**	**Verbally in person**	**Verbally over the phone**	**Written (letter, essay)**	**Through texting**	**Through e-mail**	**Through social media (i.e. Facebook/ Twitter)**	**Through online journaling or blogging**
Close Friends								
Acquaintances								
Strangers								
Parents								
Siblings								
Extended Family Members (i.e. aunt, grandparent, or cousin)								
Significant Others/Romantic Partners								
Pastor/Clergy Members								
Teachers								
Therapists/Counselors								

8. What were your reasons for sharing this memory with others? For each of the following groups of people, please select the category(ies) that address why you shared this memory. In other words, what were some benefits you personally received for sharing this memory and how did the sharing benefit others? You may select multiple categories.

Close Friends	**Did not share**	**Validation** (To legitimize your thoughts or feelings. To feel supported.)	**Intimacy** (To feel closer to someone)	**Problem-Solving** (To seek guidance and recommendations)	**Meaning seeking** (For you to better understand the impact of memory)
	Self-explanation (To help others understand you)	**Advice giving** (To give guidance and recommendations to others)	**Comfort** (To support and comfort others)	**Entertainment** (To entertain others)	**Other: Specify another reason**
Acquaintances	**Did not share**	**Validation** (To legitimize your thoughts or feelings. To feel supported.)	**Intimacy** (To feel closer to someone)	**Problem-Solving** (To seek guidance and recommendations)	**Meaning seeking** (For you to better understand the impact of memory)
	Self-explanation (To help others understand you)	**Advice giving** (To give guidance and recommendations to others)	**Comfort** (To support and comfort others)	**Entertainment** (To entertain others)	**Other: Specify another reason**

Strangers	**Did not share**	**Validation** (To legitimize your thoughts or feelings. To feel supported.)	**Intimacy** (To feel closer to someone)	**Problem-Solving** (To seek guidance and recommendations)	**Meaning seeking** (For you to better understand the impact of memory)
	Self-explanation (To help others understand you)	**Advice giving** (To give guidance and recommendations to others)	**Comfort** (To support and comfort others)	**Entertainment** (To entertain others)	**Other: Specify another reason**
Parents	**Did not share**	**Validation** (To legitimize your thoughts or feelings. To feel supported.)	**Intimacy** (To feel closer to someone)	**Problem-Solving** (To seek guidance and recommendations)	**Meaning seeking** (For you to better understand the impact of memory)
	Self-explanation (To help others understand you)	**Advice giving** (To give guidance and recommendations to others)	**Comfort** (To support and comfort others)	**Entertainment** (To entertain others)	**Other: Specify another reason**

Siblings	**Did not share**	**Validation** (To legitimize your thoughts or feelings. To feel supported.)	**Intimacy** (To feel closer to someone)	**Problem-Solving** (To seek guidance and recommendations)	**Meaning seeking** (For you to better understand the impact of memory)
	Self-explanation (To help others understand you)	**Advice giving** (To give guidance and recommendations to others)	**Comfort** (To support and comfort others)	**Entertainment** (To entertain others)	**Other: Specify another reason**
Extended Family Members (i.e. aunt, grandparent, or cousin)	**Did not share**	**Validation** (To legitimize your thoughts or feelings. To feel supported.)	**Intimacy** (To feel closer to someone)	**Problem-Solving** (To seek guidance and recommendations)	**Meaning seeking** (For you to better understand the impact of memory)
	Self-explanation (To help others understand you)	**Advice giving** (To give guidance and recommendations to others)	**Comfort** (To support and comfort others)	**Entertainment** (To entertain others)	**Other: Specify another reason**

Significant Others/Romantic Partners	**Did not share**	**Validation** (To legitimize your thoughts or feelings. To feel supported.)	**Intimacy** (To feel closer to someone)	**Problem-Solving** (To seek guidance and recommendations)	**Meaning seeking** (For you to better understand the impact of memory)
	Self-explanation (To help others understand you)	**Advice giving** (To give guidance and recommendations to others)	**Comfort** (To support and comfort others)	**Entertainment** (To entertain others)	**Other: Specify another reason**
Pastors/Clergy Members	**Did not share**	**Validation** (To legitimize your thoughts or feelings. To feel supported.)	**Intimacy** (To feel closer to someone)	**Problem-Solving** (To seek guidance and recommendations)	**Meaning seeking** (For you to better understand the impact of memory)
	Self-explanation (To help others understand you)	**Advice giving** (To give guidance and recommendations to others)	**Comfort** (To support and comfort others)	**Entertainment** (To entertain others)	**Other: Specify another reason**

Teachers	**Did not share**	**Validation** (To legitimize your thoughts or feelings. To feel supported.)	**Intimacy** (To feel closer to someone)	**Problem-Solving** (To seek guidance and recommendations)	**Meaning seeking** (For you to better understand the impact of memory)
	Self-explanation (To help others understand you)	**Advice giving** (To give guidance and recommendations to others)	**Comfort** (To support and comfort others)	**Entertainment** (To entertain others)	**Other: Specify another reason**
Therapists/Counselors	**Did not share**	**Validation** (To legitimize your thoughts or feelings. To feel supported.)	**Intimacy** (To feel closer to someone)	**Problem-Solving** (To seek guidance and recommendations)	**Meaning seeking** (For you to better understand the impact of memory)
	Self-explanation (To help others understand you)	**Advice giving** (To give guidance and recommendations to others)	**Comfort** (To support and comfort others)	**Entertainment** (To entertain others)	**Other: Specify another reason**

9. If you selected “Did not share” with any groups in the previous question, please list the most common reason(s) you did not share this memory with that group of people.

Relationship	
Close Friends	
Acquaintances	
Strangers	
Parents	
Siblings	
Extended Family Members (i.e. aunt, grandparent, or cousin)	
Significant Others/Romantic Partners	
Pastors/Clergy Members	
Teachers	
Therapists/Counselors	

10. For the following groups of people, please rate how supportive they were, in general, when you shared this memory.

Relationship	**Not Supportive** (Listener was dismissive and did not show acceptance, sympathy, or understanding)	**Somewhat Not Supportive**	**Neutral**	**Somewhat Supportive**	**Supportive** (Listener was validating and showed clear positive, accepting, and understanding response)	**Not shared**
Close Friends						
Acquaintances						
Strangers						
Parents						
Siblings						
Extended Family Members (i.e. aunt, grandparent, or cousin)						
Significant Others/Romantic Partners						
Pastors/Clergy Members						
Teachers						
Therapists/Counselors						

11. For the following groups of people, please rate how attentive they were, in general, when you shared this memory.

Relationship	**Inattentive** (Listener was distracted and did not pay attention to what was shared)	**Somewhat Not Attentive**	**Neutral**	**Somewhat Attentive**	**Attentive** (Listener was focused and listened carefully to what was shared)	**Not shared**
Close Friend						
Acquaintance						
Stranger						
Parent						
Siblings						
Extended Family Member (i.e. aunt, grandparent, or cousin)						
Significant Other/Romantic Partner						
Pastor/Clergy Member						
Teacher						
Therapist/Counselor						

12. Did sharing this memory with the following groups of people help you to understand, or gain perspective on, the event's impact on your life?

Relationship	**Yes**	**No**	**Not shared**
Close Friends			
Acquaintances			
Strangers			
Parents			
Siblings			
Extended Family Members (i.e. aunt, grandparent, or cousin)			
Significant Others/Romantic Partners			
Pastors/Clergy Members			
Teachers			
Therapists/Counselors			

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